IN THE CLAIMS:

3. (Previously Presented) A stiff, metallic hub as recited in claim 4, wherein the hub is manufactured of material selected from the group comprising aluminum, titanium, and steel.

4. (Currently Amended) A stiff, metallic hub for an energy storage device, having a flywheel assembly, wherein the hub produces a critical velocity that exceeds a design operating speed of the flywheel assembly, the stiff, metallic hub comprising:

a central core in tight interference fit with a rotary shaft of the flywheel assembly;

an outer rim section in tight interference fit with a high-strength, low-density composite fiber rim of the flywheel assembly; and

a substantially planar web section, wherein the web section is circumferentially continuous, the web section is integrally formed to the central core and the outer rim section, the web section is substantially planar when the hub is at rest, [and] the entire web section extends in a radial direction, and the web section has a substantially constant thickness in an axial direction.

5. (Previously Presented) A stiff, metallic hub as recited in claim 4, wherein the critical velocity is between about 1.4 and about 3.0 times the design operating speed of the flywheel assembly.

6. (Previously Presented) A stiff, metallic hub as recited in claim 4, wherein at high operating speeds, the outer rim section is capable of deforming in a radial direction commensurate with radial deformation of the composite fiber rim of the flywheel assembly to maintain a tight interference fit to substantially minimize vibrations.

7. (Previously Presented) A stiff, metallic hub as recited in claim 4, wherein the design operating speed of the flywheel assembly is about 22,500 revolutions per minute.

8. (Previously Presented) A stiff, metallic hub as recited in claim 4, wherein the central core has a critical length to maintain a tight interference fit with the rotary shaft of the flywheel assembly, wherein the critical length is about 1.8 inches at an operating speed of about 22,500 revolutions per minute.

9. (Previously Presented) A stiff, metallic hub as recited in claim 4, wherein the outer rim section has a critical length to maintain a tight interference fit with the composite fiber rim of the flywheel assembly, wherein the critical length is about 10 inches for an operating speed of about 22,500 revolutions per minute.

10. (Previously Presented) A stiff, metallic hub as recited in claim 4, wherein the web section has a thickness of about 7/8 inch at an operating speed of about 22,500 revolutions per minute when the rotary shaft is supported by mechanical bearings.

11. (Previously Presented) A stiff, metallic hub as recited in claim 4, wherein the web section has a thickness of about 2.4 inches at an operating speed of about 22,500 revolutions per minute when the rotary shaft is supported by magnetic bearings.

12. (Previously Presented) A stiff, metallic hub as recited in claim 4, wherein the outer rim includes at least one balancing rail for balancing the flywheel assembly to substantially minimize vibrations.

13. (Previously Presented) A stiff, metallic hub as recited in claim 4, wherein the outer rim includes an axial stop to prevent the composite fiber rim from falling off of the outer rim of the hub during high speed operation.

14. (New) A stiff, metallic hub as recited in claim 4, wherein said central core has a predetermined length whereby a predetermined minimum amount of said central core remains in tight interference fit with said shaft during operation of said hub.